

IDAHO

FISH & GAME DEPARTMENT

JOHN R. WOODWORTH, DIRECTOR

FEDERAL AID IN FISH AND WILDLIFE RESTORATION

JOB COMPLETION REPORT



LAKE AND RESERVOIR INVESTIGATIONS

Project F-53-R-6

Job IV-a - Lake Pend Oreille Creel Census

Job IV-b - Clark Fork River Fishery Investigations

March 1, 1970 to February 28, 1971

By
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Boise, Idaho September, 1971

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JOB COMPLETION REPORT
RESEARCH PROJECT SEGMENT

State of Idaho

Name: LAKE AND RESERVOIR INVESTIGATIONS

Project No. F-53-R-6

Title: Lake Pend Oreille Creel Census

Job No. IV-a

Period Covered: March 1, 1970 to February 28, 1971

ABSTRACT:

Lake Pend Oreille annually produces the largest harvest of kokanee in Idaho. A creel census conducted on the lake each year since 1951 provides basic catch data for management. In 1970, the kokanee catch improved over that of the last two years, but was only about two-thirds the 1951-1970 average. Contribution of marked Kamloops to the creel was very small.

An estimated 61,875 anglers spent 262,175 hours to catch 674,274 fish. Approximately 78 percent of the estimated anglers sought kokanee, which made up 98 percent of the estimated catch; about 21 percent sought trout, which comprised one percent of the estimated catch, and one percent were after other species (perch, crappie, etc.).

Submitted by

Richard Irizarry
Fishery Research Biologist

RECOMMENDATIONS :

Increase the number of sampling days at each access site in the annual creel census on Lake Pend Oreille.

Mark all Kamloops and Dolly Varden (with the exception of fry) planted in the lake or in tributary streams.

Determine percentage of angling and catch not landed at the major census areas.

OBJECTIVES:

To monitor and evaluate trends of major sport fisheries at Lake Pend Oreille. To evaluate and recommend management procedures.

TECHNIQUES USED:

The Idaho Fish and Game Department conducted the creel census on Lake Pend Oreille in 1970 in a manner similar to that used in previous years by interviewing a stratified sample of anglers at 13 major access areas during each of seven census periods, between January 13 and November 30, 1970. The census was used to determine the harvest and contribution of natural and hatchery-reared fish species to the creel at Lake Pend Oreille.

In 1970, hatchery personnel released 14,021 adipose clipped Kamloops catchables in tributaries to Lake Pend Oreille and 71,230 adipose-ventral clipped fingerlings in the lake. We also planted in Pend Oreille tributaries 352,588 unmarked Kamloops fry and 555,995 unmarked Dolly Varden fry.

FINDINGS:

Total Estimated Effort and Catch

Census personnel interviewed 5,272 anglers leaving the lake through 13 census landings on census days.

An estimated 61,875 anglers spent 262,175 hours to catch 674,274 fish (Table 1). Approximately 78 percent of the estimated anglers sought kokanee, which made up 98 percent of the estimated catch. About 21 percent sought trout, which comprised one percent of the estimated catch, and one percent were after other species (perch, crappie, etc.) which comprised one percent of the estimated catch.

Resident Sport Harvest

Resident sport anglers comprised 36 percent (21,944) of the total estimated anglers, harvested 27 percent (181,484) of the total catch, and 26 percent (173,672) of the kokanee catch (Table 2).

Nonresident Sport Harvest

Nonresident sport anglers made up 61 percent (37,715) of the total estimated anglers, harvested 55 percent (372,443) of the total catch, and 56 percent (367,981) of the kokanee catch (Table 3).

Commercial Harvest

Commercial anglers comprised 3 percent (2,216) of the total estimated anglers, harvested 18 percent (120,294) of the total catch, and 18 percent (120,287) of the kokanee catch (Table 4).

Effort and Catch by Kokanee and Trout Anglers

An estimated 48,472 anglers sought kokanee in 1970. Anglers who fished specifically for kokanee harvested an average of 3.0 fish per hour (Table 5). Commercial fishermen expended 4.9 percent of the effort in 1970 and averaged 9.4 kokanee per hour.

The resident sport harvest comprised 26 percent (173,672) of the kokanee catch, the nonresident sport harvest 56 percent (367,981), and the commercial harvest 18 percent (120,287).

An estimated 12,707 anglers sought trout in 1970. They spent an average of 21.8 hours to catch each trout and 38.7 hours to take each Kamloops (Tables 6 and 7).

In 1970, census personnel observed only 2 adipose-clipped (planted as catchables) Kamloops in the creel at Lake Pend Oreille so all anglers caught an estimated 14 marked Kamloops during the entire fishing season.

All fishermen combined harvested an average of 2.5 fish per hour during the 1970 fishing season. Resident fishermen averaged 1.9, nonresident fishermen 2.4, and commercial fishermen 9.4 fish per hour of effort.

Resident anglers fished an average of 4.2 hours per trip, nonresident anglers 4.2 hours, and commercial anglers 5.8 hours.

Age Composition of Kokanee Catch

At intervals throughout the year, we measured 2,091 angler-caught kokanee to assess age and growth of the fish (Table 8). Length distributions of these fish indicate the range of sizes for each age class and contribution of each age class to the fishery. We measured an additional 300 spawning kokanee on November 18, 1970 near the mouth of Granite Creek. These fish averaged 10.5 inches in total length.

The 1970 kokanee harvest consisted of: 1965 age class - 74 percent; 1966 age class - 20 percent; and 1967 age class - 6 percent.

The 1965 year class made up 80 percent (60 tons) of the total 1970 kokanee poundage; the 1966 year class made up 16 percent (12 tons); and the 1967 year class made up 4 percent (3 tons). The contribution from the 1964 year class was very small (Table 9).

Size Range of Trout

Cutthroat trout observed during the creel census ranged in length from 7 to 17.5 inches and averaged 11.4 inches; Dolly Varden ranged from 8 to 31 inches and averaged 20.3 inches; while Kamloops ranged from 6 to 37 inches and averaged 15.3 inches. In 1970, anglers captured an estimated 903 trophy (17 inches and over) Kamloops and 471 trophy Dolly Varden.

Intensive Creel Census

During the last three census periods of 1970, July 16 through November 30, an

intensive creel census was undertaken at two of the more heavily used access areas at Lake Pend Oreille. The selected sites, MacDonald's Resort and Trestle Creek, were each censused three Saturdays, three Sundays, and three week days instead of the usual one Saturday, one Sunday and one week day per 46-day census period. Our objective was to measure the variability of angling pressure and catch and to assess the need for more intensive census data collection.

I did not calculate the confidence interval of the 1970 data; however, census personnel on three Saturdays during Period 5 at MacDonald's Resort recorded a low daily catch of 30 kokanee and a high catch of 493 kokanee (Appendix).

The estimated total Saturday catch based on the low data (30) is 210 compared with 3,451 as a high estimate. We are making an intensive season-long census of the fisheries in 1971 to measure variability.

The 1951-1970 catch statistics are summarized in Tables 10-13 for reference. There have been rather significant declines in catch estimates of all important species in recent years.

Table 1. Estimated minimum fishing pressure and harvest, by species, Lake Pend Oreille, Idaho, 1970*.

Period	Anglers	Hours	Kokanee	Cut-throat	Dolly Varden	Rain-bow	Mtn. white-fish	Lake white-fish	Perch	Crappie	Bass	Other game	Non-game
Jan. 13 - Feb. 27	2,012	7,986	50,050	- - -	closed season - - -								
Feb. 28 - Apr. 14	3,209	15,006	65,378	- - -	closed season - - -								
Apr. 15 - May 30	8,963	45,916	50,290	131	346	766	7	289	249	18	39	19	312
May 31 - July 15	18,238	74,292	197,438	469	157	1,821	14	312	163			6	532
July 16 - Aug. 30	14,764	56,647	157,069	364	49	894	71	32	657				42
Aug. 31 - Oct. 15	12,476	52,646	141,132	232	46	670	6	98	1,610	184		6	416
Oct. 16 - Nov. 30	2,213	9,682	583	60	42	268			748	189			
Totals	61,875	262,175	661,940	1,256	640	4,419	98	731	3,427	391	39	31	1,302
Percent			98.17	.19	.10	.66	.01	.11	.51	.06	.00	.00	.19

*includes only the data expanded from interviews at 13 censused landings.

Table 2. Resident sport fishing pressure and harvest, by species,
Lake Pend Oreille, Idaho, 1970.

Period	Man Days	Hours	Kokanee	Cut- throat	Dolly Varden	Rain- bow	Mtn. white- fish	Lake white- fish	Perch	Crappie	Bass	Other game	Non- game
Jan. 13 - Feb. 27	1,092	3,840	12,534	---Closed Season ---									
Feb. 28 - Apr. 14	1,706	7,296	16,145	---Closed Season ---									
April 15 - May 30	5,332	25,199	13,954	79	209	367	7	282	219	18	39	6	293
May 31 - July 15	5,568	21,965	55,992	128	85	663		266	123			6	376
July 16 - Aug. 30	3,187	12,148	30,642	85		336		32	416				35
Aug. 31 - Oct. 15	3,870	16,200	44,242	112	6	324		24	1,598	184		6	404
Oct. 16 - Nov. 30	1,189	5,230	163	28	21	88			748	189			
Totals	21,944	91,878	173,672	432	321	1,778	7	604	3,104	391	39	18	1,108

Table 3. Nonresident sport fishing pressure and harvest, by species,
Lake Pend Oreille, Idaho, 1970.

Period	Man Days	Hours	Kokanee	Cut- throat	Dolly Varden	Rain- bow	Mtn. white- fish	Lake white- fish	Perch	Crappie	Bass	Other game	Non- game
Jan. 13 - Feb. 27	216	618	484	--- Closed Season ---									
Feb. 28 - Apr. 14	677	3,382	8,219	--- Closed Season ---									
Apr. 15 - May 30	3,015	16,177	2,376	52	137	399		7	30			13	19
May 31 - July 15	12,600	51,872	133,165	341	72	1,158	14	39	40				93
July 16 - Aug. 30	11,577	44,499	126,427	279	49	558	71		241				7
Aug. 31 - Oct. 15	8,606	36,446	96,890	120	40	346	6	74	12				12
Oct. 16 - Nov. 30	1,024	4,452	420	32	21	180							
Totals	37,715	157,446	367,981	824	319	2,641	91	120	323			13	131

Table 4. Commercial fishing pressure and harvest, by species, Lake Pend Oreille, 1970.

Period	Man Days	Hours	Kokanee	Lake Whitefish
Jan. 13 - Feb. 27	704	3,528	37,032	-
Feb. 28 - Apr. 14	826	4,328	41,014	-
Apr. 15 - May 30	616	4,540	33,960	-
May 31	70	455	8,281	7
TOTALS	2,216	12,851	120,287	7

Table 5. Catch data for interviewed anglers (including commercial) seeking kokanee, Lake Pend Oreille, Idaho, 1970

Month	Anglers	Hours	Kokanee	Other game fish	Kokanee per hr.	All game fish per hour
January	6	22	16	0	0.73	0.73
February	114	444	1,749	0	3.94	3.94
March	138	769	4,793	0	6.23	6.23
April	115	490	410	0	0.84	0.84
May	565	2,452	8,568	84	3.49	3.53
June	630	2,501	5,906	100	2.36	2.40
July	711	2,659	7,296	77	2.74	2.77
August	729	2,895	8,789	38	3.04	3.05
September	631	2,690	7,908	38	2.94	2.95
October	296	1,279	3,017	5	2.36	2.36
November	-	-	-	-	0.00	0.00
Totals	3,935	16,201	48,452	342		
Average (weighted)					2.99	3.01

Table 6. Catch data for interviewed anglers seeking trout, all species combined, Lake Pend Oreille, Idaho, 1970.

Month	Anglers	Hours	Trout	Other game fish	Trout per hour	All game fish per hour
May	716	4,015	131	5	0.03	0.03
June	137	564	41	15	0.07	0.10
July	99	385	29	8	0.08	0.10
August	85	301	33	21	0.11	0.18
September	68	205	20	7	0.10	0.13
October	216	961	41	2	0.04	0.04
November	46	233	11	19	0.05	0.13
Totals	1,367	6,664	306	77		
Average (weighted)					0.05	0.06

Table 7. Catch data for interviewed anglers seeking Kamloops rainbow trout, Lake Pend Oreille.
Idaho. 1970

Month	Anglers	Hours	Kamloops rainbow	Other trout	Other game fish	Kamloops rainbow per hr.	Kamloops rb & other trout/hr.	All game fish per hour
May	632	3,726	76	37	3	0.02	0.03	0.03
June	132	557	31	10	11	0.06	0.07	0.09
July	75	299	5	2	-	0.02	0.02	0.02
August	63	232	10	2	-	0.04	0.05	0.05
September	53	171	10	1	4	0.06	0.06	0.09
October	195	897	21	9	1	0.02	0.03	0.03
November	42	226	5	-	19	0.02	0.02	0.11
Totals	1,192	6,108	158	61	38			
Average (weighted)						0.03	0.04	0.04

Table 8. Length frequency distribution of 2,091 kokanee from the catch and 300 kokanee from the spawning populations, Lake Pend Oreille, Idaho, 1970.

Length group (mm)	1970 Creel census						1970 Spawners	
	Interval 1	Interval 2	Interval 3	Interval 4	Interval 5	Interval 6	Females	Males
160-4		1						
165-9		3		1				
170-4		2						
175-9		1	1	1				
180-4				4	1			
185-9		1	1	1	6			
190-4		3		2	17			
195-9	2	1	2	1	39			
200-4	10	12	4	1	49	5		
205-9	20	30	8	6	17	6		
210-4	15	32	13	18	23	5		
215-9	19	19	16	24	45	9		
220-4	31	20	21	29	46	9		
225-9	53	34	28	34	53	12		
230-4	26	34	55	28	73	20		
235-9	10	11	25	33	96	12		
240-4	5	1	15	12	113	44	1	
245-9		2	8	6	85	65	8	2
250-4			1	3	50	114	12	1
255-9			1		29	97	33	10
260-4		1			10	65	47	24
265-9	1	2			2	38	29	25
270-4					2	22	13	41
275-79						5	6	22
280-4						2	1	15
285-89								5
290-94								2
295-99								3

Table 9. Estimated minimum catch of kokanee by year class, Lake Pend Oreille, Idaho, 1970.*

1970 Period	Estimated number of Kokanee caught**	Year Class in the Catch								
		1965			1966			1967		
		Percent	Number	Pounds	Percent	Number	Pounds	Percent	Number	Pounds
Jan. 13 - Feb. 27	50,050	77.08	38,579	8,101.59	22.40	11,211	1,905.87	-	-	-
Feb. 28 - Apr. 14	65,378	50.48	33,003	7,260.66	44.29	28,956	4,922.52	5.25	3,419	341.90
Apr. 15 - May 30	50,290	82.91	41,695	9,172.90	16.08	8,087	1,374.79	1.01	508	55.88
May 31 - July 15	197,438	78.43	153,883	33,854.26	17.16	34,848	5,924.16	4.41	8,707	957.77
July 16 - Aug. 30	157,069	68.52	109,210	27,302.50	14.68	21,079	3,794.22	16.80	26,780	3,749.20
Aug. 31 - Oct. 15	141,132	76.98	108,643	33,679.33	20.19	28,495	6,553.85	2.83	3,994	629.04
Oct. 16 - Nov. 30	583	76.98	449	152.66	20.19	118	27.14	2.83	16	2.56
Total number	661,940		485,462			132,794			43,424	
Total pounds				119,523.90			24,502.55			5,736.35
Percent of total number (weighted)		73.34			20.06			6.56		

* Includes only the data expanded from interviews at 13 censused landings.

**The 1964 year class returned 260 kokanee (.04 percent) or 91 pounds to the creel during Period I.

Table 10. Estimated total catch of kokanee, Kamloops, Dolly Varden, and cutthroat trout, Lake Pend Oreille, Idaho, 1951 - present.

Year	Kokanee	Kamloops	Trophy Trophy	Dolly Varden	Trophy Dolly Varden	Cutthroat
1951	820486	678		1,775		5,271
1952	514,913	535		2,393		5,850
1953	1,335,881	3,158		5,035		8,201
1954	1,232,916	2,533		3,660		5,322
1955	650,375	2,594		3,811		4,982
1956	1,092,651	3,251		3,288		5,343
1957	751,113	2,938		2,117		5,138
1958	1,197,076	5,286		1,348		5,881
1959	1,261,943	4,906		1,667		3,659
1960	1,038,200	9,626	1,380	2,616		3,615
1961	991,595	5,356	873	1,010		2,608
1962	650,960	6,556	1,136	1,434		2,609
1963	1,049,339	10,316	1,442	1,131		3,273
1964	1,148,197	4,942	870	929		1,757
1965	1,003,132	4,713	1,141	1,460		1,744
1966	807,169	4,975	1,040	1,199	740	2,040
1967	898,748	3,349	767	657		788
1968	593,704	4,162	832	624		782
1969	494,358	3,297	889	862	588	954
1970	661,940	4,419	903	640	471	1,256

Table 11. Estimated total catch of kokanee by license class, Lake Pend Oreille, Idaho, 1951-present.

Year	All Anglers	Resident Anglers	Nonresident Anglers	Commercial Anglers
1951	820,486	---	---	170,500
1952	514,913	183,657	268,116	63,140
1953	1,335,881	412,288	382,593	541,000
1954	1,232,916	326,568	362,844	543,504
1955	650,375	181,492	228,610	240,273
1956	1,092,651	423,092	240,294	429,265
1957	751,113	256,280	277,699	217,134
1958	1,197,076	365,082	359,132	473,212
1959	1,261,943	377,095	432,001	452,847
1960	1,038,200	319,041	278,571	440,588
1961	991,595	257,362	305,001	429,232
1962	650,960	168,847	190,039	292,074
1963	1,049,339	359,677	314,291	375,371
1964	1,148,197	325,223	452,962	370,012
1965	1,003,132	380,847	319,034	303,251
1966	807,169	220,267	349,869	237,033
1967	898,748	218,629	289,877	390,242
1968	593,704	204,972	288,454	100,278
1969	494,058	189,794	242,211	62,353
1970	661,940	173,672	367,981	120,287

Table 12. Kokanee size at spawning time, Lake Pend Oreille, Idaho

Year	Average size at spawning (inches)
1950	10.9
1951	11.2
1952	12.0
1953	11.9
1954	9.9
1955	-
1956	9.8
1957	-
1958	10.5
1959	10.7
1960	11.2
1961	11.2
1962	11.0
1963	10.7
1964	9.9
1965	10.3
1966	10.4
1967	10.2
1968	-
1969	10.2
1970	10.5

Table 13. Lake Pend Oreille kokanee catch by period, 1959 - present.

Year	Kokanee catch by period							Total Catch
	Jan. 13- Feb. 27	Feb. 28- Apr. 14	Apr. 15- May 30	May 31- July 15	July 16- Aug. 30	Aug. 31- Oct. 15	Oct. 16- Nov. 30	
1959	---	233,599	380,173	270,157	213,144	158,622	6,248	1,261,943
1960	19,042	287,126	306,945	131,586	72,112	201,303	20,068	1,038,182
1961	77	239,822	347,946	98,447	41,227	260,326	3,750	991,595
1962	24,005	117,808	240,200	79,608	72,440	103,005	13,894	650,960
1963	212,175	130,142	261,372	55,511	150,634	221,355	18,150	1,049,339
1964	90,162	159,626	283,894	213,923	145,106	241,791	3,695	1,138,197
1965	116,033	287,280	157,907	147,746	36,761	254,740	2,665	1,003,132
1966	72,766	146,076	170,649	95,038	139,628	176,684	6,328	807,169
1967	125,435	62,334	107,762	358,366	73,220	165,761	5,870	898,748
1968	110,898	4,968	90,272	136,559	114,754	136,235	18	593,704
1969	9,266	10,378	124,542	103,993	105,186	135,507	5,486	494,358
1970	50,050	65,378	50,290	197,438	157,069	141,132	583	661,940

APPENDIX

Intensive Survey of Census Landing Data

Pend Oreille Lake 1970

Date	9 Day Creel Census			
	Resident		Nonresident	
	Hrs. fished	Kokanee	Hrs. fished	Kokanee
<u>Weekdays</u>				
7/17	3	-	37	9
7/31	6	7	37	34
8/11	23	37	70	137
Total	32	44	144	180
Ave.	11	15	48	60
Estimated subtotal x 32	352	480	1,536	1,920
<u>Saturdays</u>				
7/25	-	-	65	30
8/1	63	36	99	39
8/29	16	36	152	457
Total	79	72	316	526
Ave.	26	24	105	175
Estimated subtotal x 7	182	168	735	1,225
<u>Sundays</u>				
7/26	39	8	57	24
8/2	-	-	30	42
8/16	11	42	82	152
Total	50	50	169	218
Ave.	17	17	56	73
Estimated subtotal x 7	119	119	392	511
Total	653	767	2,663	3,656

Hrs. fished = 3,316
Kokanee caught = 4,423

Period 6 (August 31 - Oct. 15)

McDonald's Resort

Date	9-Day Creel Census			
	Resident		Nonresident	
	Hrs. fished	Kokanee	Hrs. fished	Kokanee
<u>Weekdays</u>				
9/16	30	120	163	544
10/7	9	39	11	54
10/15	-	-	-	-
Total	39	159	174	598
Ave.	13	53	58	199
Estimated subtotal x 34	442	1,802	1,972	6,766
<u>Saturdays</u>				
9/26	38	79	319	807
10/3	20	106	66	266
10/10	13	87	41	266
Total	71	272	426	1,339
Ave.	24	91	142	446
Estimated subtotal x 6	144	546	852	2,676
<u>Sundays</u>				
9/13	44	108	39	84
9/20	39	162	220	712
9/27	38	33	66	142
Total	121	303	325	938
Ave.	40	101	108	313
Estimated subtotal x 6	240	606	648	1,878
Total	826	2,954	3,472	11,320

Hrs. fished = 4,298
Kokanee caught = 14,274

Period 7 (October 16 - November 30)

McDonald's Resort

Date	9-Day Creel Census			
	Resident		Nonresident	
	Hrs. fished	Kokanee	Hrs. fished	Kokanee
<u>Weekdays</u>				
10/27	-	-	-	-
11/13	-	-	-	-
11/24	-	-	-	-
Total	-	-	-	-
Ave.	-	-	-	-
Estimated subtotal x 32	-	-	-	-
<u>Saturdays</u>				
10/24	-	-	-	-
*10/31	-	-	9	-
*11/7	10	-	-	-
Total	10	-	9	-
Ave.	3	-	3	-
Estimated subtotal x 7	21	-	21	-
<u>Sundays</u>				
*10/25	-	-	21	-
11/15	-	-	-	-
11/29	-	-	-	-
Total	-	-	21	-
Ave.	-	-	7	-
Estimated subtotal x 7	-	-	49	-
Total	21	-	70	-

Hrs. fished = 91
Kokanee caught = 0

* All anglers interviewed were seeking kamloops.

Period 5 (July 16 - August 30)

Trestle Creek

Date	9-Day Creel Census			
	Resident		Nonresident	
	Hrs. fished	Kokanee	Hrs. fished	Kokanee
<u>Weekdays</u>				
7/23	41	137	338	1,157
8/4	32	208	451	2,235
8/14	43	225	421	2,008
Total	116	570	1,210	5,400
Ave.	39	190	403	1,800
Estimated subtotal x 32	1,248	6,080	12,896	57,600
<u>Saturdays</u>				
8/8	-	-	70	191
8/22	5	12	315	865
8/29	20	27	315	838
Total	25	39	700	1,894
Ave.	8	13	233	631
Estimated subtotal x 7	56	91	1,631	4,417
<u>Sundays</u>				
7/19	14	56	284	922
8/16	27	46	212	738
8/23	7	11	232	804
Total	48	113	728	2,464
Ave.	16	38	243	821
Estimated subtotal x 7	112	266	1,701	5,747
Estimated total	1,416	6,437	16,228	67,764

Hrs. fished = 17,644
Kokanee caught = 74,201

Period 6 (August 31 - Oct. 15)

Trestle Creek

Date	9-Day Creel Census			
	Resident		Nonresident	
	Hrs. fished	Kokanee	Hrs. fished	Kokanee
<u>Weekdays</u>				
9/14	58	315	185	799
9/15	45	191	203	760
10/9	-	-	11	19
Total	103	506	399	1,578
Ave.	34	169	133	526
Estimated subtotal x 34	1,156	5,746	4,522	17,884
<u>Saturdays</u>				
9/12	19	82	99	342
9/19	5	33	41	200
9/26	7	40	30	136
Total	31	155	170	678
Ave.	10	52	57	226
Estimated subtotal x 6	60	312	342	1,356
<u>Sundays</u>				
9/20	36	125	47	134
10/4	10	25	10	11
10/11	-	-	4	7
Total	46	150	61	152
Ave.	15	50	20	51
Estimated subtotal x 6	90	300	120	306
Total	1,306	6,358	4,984	19,546

Hrs. fished - 6,290
Kokanee caught = 25,904

Period 7 (October 16 - November 30)

Trestle Creek

Date	9-Day Creel Census			
	Residents		Nonresidents	
	Hrs. fished	Kokanee	Hrs. fished	Kokanee
<u>Weekdays</u>				
10/23	-	-	-	-
11/9	-	-	-	-
11/10	-	-	-	-
Total	-	-	-	-
Ave.	-	-	-	-
Estimated subtotal x 32	-	-	-	-
<u>Saturdays</u>				
11/14	-	-	-	-
11/21	-	-	-	-
11/28	-	-	-	-
Total	-	-	-	-
Ave.	-	-	-	-
Estimated subtotal x 7	-	-	-	-
<u>Sundays</u>				
10/25	-	-	-	-
11/15	-	-	-	-
11/22	-	-	-	-
Total	-	-	-	-
Ave.	-	-	-	-
Estimated subtotal x 7	-	-	-	-

Hrs. fished = 0
Kokanee caught = 0

JOB COMPLETION REPORT RESEARCH PROJECT STATEMENT

State of Idaho
Project No. F-53-R-6
Job No. IV-b

Name: LAKE AND RESERVOIR INVESTIGATIONS
Title: Clark Fork River Fishery
Investigations

Period Covered: March 1, 1970 to February 28, 1971

ABSTRACT:

Each year during the spring (May) and fall (October and November) anglers fish the lower Clark Fork River for "trophy" species (17 inches or larger) of Kamloops rainbow and Dolly Varden char. Since 1966, an annual creel census has assessed the magnitude of this fishery. In 1970, anglers fishing the Clark Fork River caught an estimated 110 trophy Kamloops and 218 trophy Dolly Varden.

Submitted by:

Richard Irizarry
Fishery Research Biologist

RECOMMENDATION::

The fishery on the Clark Fork River should continue since, at this time, no adverse effects to the Kamloops population of Lake Pend Oreille can be ascertained.

The creel census and its evaluation should continue on the Clark Fork River.

OBJECTIVES:

To monitor and evaluate trends of major sport fisheries at Lake Pend Oreille. To evaluate and recommend management practices.

TECHNIQUES USED:

During the spring and fall of 1970, a random stratified creel census was used on the Clark Fork River to estimate the total catch of trophy Kamloops and Dolly Varden.

Department personnel interviewed anglers at a check station near the town of Clark Fork. In the spring, between May 2 and May 15, the check station was operated one week day and one weekend day per week. In the fall, between October 8 and November 18, the census was increased by one additional week day per week.

Creel information was also obtained at the end of the census day from anglers remaining overnight at the Johnson Creek access area.

FINDINGS:

Total Estimated Effort and Catch

During the spring fishery, Department personnel interviewed 214 anglers who fished 910 hours to catch 14 trophy Kamloops and 84 trophy Dolly Varden (Table 1). The census was terminated on May 15 because high water reduced angler pressure.

An estimated 497 anglers fished 2,051 hours to catch 28 trophy Kamloops and 183 trophy Dolly Varden in May (Table 2).

During the fall fishery, Department personnel interviewed 235 anglers who fished 1,065 hours to catch 30 trophy Kamloops and 16 trophy Dolly Varden (Table 1). Fishing terminated on the Clark Fork River with receding water levels due to the annual winter drawdown.

An estimated 525 anglers fished 2,379 hours to catch 82 trophy Kamloops and 35 trophy Dolly Varden in October and November (Table 2).

Resident Sport Harvest

Resident sport anglers comprised 70 percent of the total estimated anglers. They expended 68 percent of the effort to catch 78 percent (257) of the combined trophy fish harvest (Table 2).

Nonresident Sport Harvest

Nonresident sport anglers comprised 30 percent of the total estimated anglers. They expended 32 percent of the angler effort to catch 22 percent (71) of the combined trophy fish harvest (Table 2).

River vs. Lake Trophy Fishery

Interviewed anglers spent an average of 44.9 hours per trophy Kamloops caught and 19.8 hours per Dolly Varden on the Clark Fork River. On Lake Pend Oreille, anglers spent an average of 71.9 hours per trophy Kamloops and 15.6 hours per trophy Dolly Varden caught.

The average angler on the river fished 4.4 hours while those on the lake fished 5.1 hours.

In 1970, anglers fishing the Clark Fork River caught an estimated 110 trophy Kamloops and 218 trophy Dolly Varden. In comparison, anglers caught an estimated 903 trophy Kamloops and 471 trophy Dolly Varden in Lake Pend Oreille.

Table 1. Catch data for interviewed anglers seeking "trophy" fish species, Clark Fork River, Idaho, 1970.

Fishery	License type	No. Anglers	Hrs. fished	Fish caught	
				Kamloops	Dolly Varden
Spring	Resident	176	745	9	74
	Nonresident	38	165	5	10
	Subtotal	214	910	14	84
Fall	Resident	135	575	16	13
	Nonresident	100	490	14	3
	Subtotal	235	1,065	30	16
	Total	449	1,975	44	100

Table 2. Estimated minimum number of anglers, hours fished, and catch of "trophy" fish species, Clark Fork River, Idaho, 1970


Fishery	License type	No. Anglers	Hrs. fished	Fish caught	
				Kamloops	Dolly Varden
Spring	Resident	418	1,715	18	163
	Nonresident	79	336	10	20
	Subtotal	497	2,051	28	183
Fall	Resident	299	1,280	49	27
	Nonresident	226	1,099	33	8
	Subtotal	525	2,379	82	35
	Total	1,022	4,430	110	218

Submitted by:

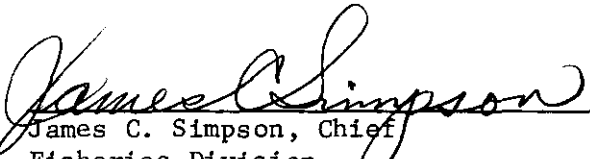
Richard A. Irizarry
Fishery Research Biologist

Approved by:

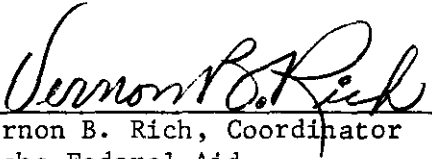
IDAHO FISH AND GAME DEPARTMENT



Joseph C. Greenley, Director



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